The Dust Tail of P/Halley: Constraints on the Rotation of the Nucleus.

S. Sheppard (Oberlin College)

The dust tail of P/Halley exhibited striations indicative of periodic outbursts from the nucleus. Images of P/Halley in February, March, and April of 1986 from the International Halley Watch Large Scale Phenomena Network CD-ROM archive were analyzed using a Monte Carlo numerical simulation program. A preliminary analysis using synchrones indicates the existance of two separate periodic emission events each of which has a period of about 7 days. The events are separated from each other by approximately 2 days. Detailed modeling shows that the periods and relative strengths of the dust tail features can be modeled by either two separate jets on an almost purely rotating nucleus or a single jet on a strongly precessing nucleus.

Abstract submitted for 1996 DPS meeting

Date submitted: LPI electronic form version 5/96

Division for Planetary Sciences Abstract Form

DPS Category 17 Running #7499 Session 0.00

Invited [ ] Poster presentation [X] Title only [ ]

Have you received your Ph.D. since the last DPS meeting?

Yes [ ] No [X]

Is your abstract newsworthy, and if so, would you be willing to prepare a news release and be available for interviews with reporters?

Yes [ ] No [ ] Maybe [ ]

Paper presented by Scott Sheppard
Department of Physics
Bucknell University

Lewisburg PA 17837 USA
Phone: 717-524-3767
Fax: 717-524-3767
Email: lien@bucknell.edu

Special instructions: Tue Aug 27 17:22:33 CDT 1996

Membership Status (First Author):

DPS-AAS Member [ ] Non-Member [ ]

Student Member [ ] Student Non-Member [X]

Is this your first DPS presentation? Yes [X] No [ ]

Sponsor: David Lien